

Preliminary Amendment

Applicant: Gordon J. Smith

Filing Date: Herewith

Docket No.: H327.103.103

Divisional Application of:

Serial No.: 09/886,566

Filing Date: June 21, 2001

Title: METHOD OF BURNISHING A BURNISHABLE REAR PAD SLIDER IN A DISK DRIVE

IN THE CLAIMS

Please cancel claims 1-14 as follows:

1.(Cancelled)

2.(Cancelled)

3.(Cancelled)

4.(Cancelled)

5.(Cancelled)

6.(Cancelled)

7.(Cancelled)

8.(Cancelled)

9.(Cancelled)

10.(Cancelled)

11.(Cancelled)

12.(Cancelled)

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13.(Cancelled)

14.(Cancelled)

15.(Original) A method of shaping a rear pad of a slider within a disk drive, the rear pad being formed of burnishable material and maintaining an element for reading and/or writing, the disk drive further including a spindle motor rotatably driving a disk and an actuator assembly positioning the slider over a surface of the disk, wherein during normal operation of the disk drive, rotation of the disk at a normal operational speed generates an air bearing between the slider and the disk surface, the air bearing dictating a fly height, the method comprising:

initially forming the rear pad to an increased height such that at the normal operational

speed, the rear pad is loaded against the disk surface and the fly height is zero;

rotating the disk such that the rear pad rubs against the disk surface; and

radially moving the slider relative to the disk surface in a reciprocal fashion during a first burnishing mode, causing the rear pad to rock;

wherein during the first burnishing mode, contact between the rear pad and the disk surface causes the height of the rear pad to decrease and imparts a positive camber into the rear pad.

16.(Original) The method of claim 15, wherein a radial velocity and a radial travel distance of the slider during the first burnishing mode is predetermined.

17.(Original) The method of claim 15, wherein the first burnishing mode includes an initial burnishing stage and a secondary burnishing stage, the method further comprising:

establishing an initial wear level value for the rear pad; and

transitioning from the initial burnishing stage to the secondary burnishing stage once the rear pad has been burnished to the initial wear level value;

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wherein a radial velocity of the slider and the secondary burnishing stage is less than a radial velocity of the slider in the initial burnishing stage.

18.(Original) The method of claim 17, wherein the first burnishing mode further includes a final burnishing stage, the method further comprising:

establishing a final wear level value for the rear pad; and

transitioning from the secondary burnishing stage to the final burnishing stage once the rear pad has been burnished to the final wear level value;

wherein a radial travel distance of the slider in the final burnishing stage is less than a radial travel distance of the slider in the secondary burnishing stage.

19.(Original) The method of claim 15, further comprising the steps of:

(a) operating the disk drive at a normal operational speed following completion of the first burnishing mode, the slider flying above the disk surface at a fly height;

b) determining that a fly height correction is necessary;

c) operating the disk drive in a second burnishing mode, the second burnishing mode including:

temporarily decreasing a spacing between the rear pad and the disk surface;

radially moving the slider relative to the disk surface in a reciprocal fashion, causing the rear pads to rock;

wherein sides of the rear pad are burnished by the disk surface during the second burnishing mode; and

d) operating the disk drive under normal operational conditions, wherein the fly height has been altered by the burnishing in the second burnishing mode.

20.(Original) The method of claim 15, wherein a radial acceleration of the slider in the first burnishing mode is greater than a radial acceleration of the slider under normal operational conditions of the disk drive.